

REMARKS

In the Office Action¹ ("OA") mailed August 9, 2005, the Examiner (1) objected to the Abstract, (2) rejected claims 1-19 and 22 under 35 U.S.C. § 101 as being directed to non-statutory subject matter, (3) rejected claims 1, 3-6, 9-10, 12-15, and 18-22 under 35 U.S.C. § 103(a) as being unpatentable over McLennan, Michael J., "Object-oriented Programming with [incr Tcl] Building Mega-Widgets with [incr TK]" (*McLennan*) in view of U.S. Patent No. 6,047,284 to Owens et al. (*Owens*); (4) rejected claims 2 and 11 as being unpatentable over *McLennan* in view of *Owens*, and further in view of U.S. Patent No. 5,943,496 to Li et al. (*Li*); and (5) rejected claims 7-8 and 16-17 as being unpatentable over *McLennan* in view of *Owens*, and further in view of Hostetter et al., "Curl: A Gentle Slope Language for the Web" (*Hostetter*).

By this Amendment, Applicants cancel claims 4, 13, and 22, and amend claims 1, 10, 19, and 20. Claims 1-3, 5-12, and 14-21 remain pending. In view of the foregoing amendments and the following remarks, Applicants respectfully traverse the Examiner's rejections of the claims under 35 U.S.C. § 101 and 35 U.S.C. § 103(a).

Section 101 Rejections

The Examiner rejected claims 1-19 and 22 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 4, 13, and 22 have been canceled. With respect to claims 1-3, 5-12, and 14-19, the Examiner stated that the claim language raises a question as to whether the claims are directed merely to abstract

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

ideas that may be implemented by “a person using a pen, papers, and drawings.” (OA at page 3-4, ¶5.) Applicants respectfully disagree with the Examiner’s application of the “human step” test.

In a recent precedential opinion, the Board of Patent Appeals and Interferences held that “there is currently no judicially recognized separate ‘technological arts’ test to determine patent eligible subject matter under § 101.” *Ex parte Lundgren*, Appeal No. 2003-2088 (B.P.A.I. 2005). Moreover, the Interim Guidelines for Examination of Patent Applications clearly states that “the following tests are not to be applied by examiners in determining whether the claimed invention is patent eligible subject matter: (A) ‘not in the technological arts’ test (B) Freeman-Walter-Abele test (C) mental step or human step tests (D) the machine implemented test and (E) the per se data transformation test.” Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex III (October 26, 2005). Applicants contend that the claims clearly recite statutory subject matter under the judicially recognized test set forth by the Federal Circuit and followed by the M.P.E.P.: that the claimed invention as a whole produces a “useful, concrete and tangible result....” *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998); see M.P.E.P. § 2106. Thus, in light of the Board’s recent *Lundgren* opinion, Applicants request the reconsideration and withdrawal of the § 101 rejections of claims 1-3, 5-12, and 14-19.

Section 103(a) Rejections

To establish a prima facie case of obviousness, three basic criteria must be met. First, the prior art reference as modified must teach or suggest all the claim elements.

(See M.P.E.P. § 2143.03 (8th ed. 2001)). Second, there must be some suggestion or motivation, either in the reference or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. (See M.P.E.P. § 2143 (8th ed. 2001)). Third a reasonable expectation of success must exist. Moreover, each of these requirement must “be found in the prior art, and not be based on applicant’s disclosure.” (M.P.E.P. § 2143.03 (8th ed. 2001)).

1. Rejection of Claims 1, 3, 5, 6, 9, 10, 12, 14, 15, and 18-21

Applicants traverse the rejection of claims 1, 3, 5, 6, 9, 10, 12, 14, 15, and 18-21 under 35 U.S.C. § 103(a) because a prima facie case of obviousness has not been established based on *McLennan* and *Owens*. With respect to claim 1, the Examiner alleged that *McLennan* discloses: “notifying objects of a change in an option value of an option through a change handler identified by an option binding, the option binding being located by first searching a mapping data structure for a previously computed mapping to the option binding and, if no mapping was previously computed, by then computing the mapping to the option binding and storing the mapping in the mapping data structure” (OA at page 5, ¶7). Applicants respectfully submit that neither *McLennan* nor *Owens* disclose or suggest this claimed limitation. Moreover, the references do not disclose or suggest at least “wherein code for the change handler for the option is defined in different classes within the class inheritance hierarchy and the change handler code from each of the different classes is executed when the option value changes,” as recited in amended claim 1.

McLennan discloses methods for building mega-widgets with [incr Tk] (*McLennan* title). The methods describe using normal Tk widgets as components to

create brand new widgets, or mega-widgets, in [incr Tk] (*McLennan* pg. 71, lines 8-12). When a mega-widget is constructed, the constructor for the least-specific class `itk::Archetype` is called first (*McLennan* pg. 76, lines 13-15). When called, the constructor initializes some internal variables that keep track of component widgets and their configuration options (*Id.*). As each component is created, the component's options are merged into a master list of options for the mega-widget (*McLennan* pg. 77, lines 1-2; figure 2-5). All of the master configuration options are kept in a protected array called `itk_option` (*McLennan* pg. 79, lines 3-5). A call to the `itk_component` adds the component and merges the component's configuration options into the master list of options (*McLennan* pg. 78, lines 29-31). A series of commands, such as "keep", at the end of the `itk_component` call controls how the component's configuration options are merged into the master list (*McLennan* pg. 78, lines 35-36; Figures 2-6 to 2-7). When one sets an option on the master option list, it affects all of the internal components that are tied to that option (*McLennan* pg. 80, lines 2-4). The rest of the component options will be ignored by default and not merged to the master options list, which is preferable for certain component options such as `-text` or `-component` as they are different for each components in the mega-widget (*McLennan* pg. 81, lines 10-14).

However, neither these teachings, nor any other teachings of *McLennan*, can constitute "notifying objects of a change in an option value of an option through a change handler identified by an option binding, the option binding being located by first searching a mapping data structure for a previously computed mapping to the option binding and, if no mapping was previously computed, by then computing the mapping to the option binding and storing the mapping in the mapping data structure, wherein code

for the change handler for the option is defined in different classes within the class inheritance hierarchy and the change handler code from each of the different classes is executed when the option value changes," as recited in amended claim 1. For example, *McLennan* discloses that one must include a "keep" statement, when adding a component, for each of the component one wishes to access on the master options list (*McLennan* pg. 81, lines 8-9; Figures 2-6 to 2-8). Component options not previously merged onto the master option list will be ignored and not merged to the master options list. When a change is made to a component option not merged onto the master option list, that component option is not merged into and stored on the master option list. All of the master configuration options are kept in a protected array called `itk_option` (*McLennan* pg. 79, lines 3-5), which is not defined in different classes within a class inheritance hierarchy. Therefore, *McLennan* does not constitute a teaching of "notifying objects of a change in an option value of an option through a change handler identified by an option binding, the option binding being located by first searching a mapping data structure for a previously computed mapping to the option binding and, if no mapping was previously computed, by then computing the mapping to the option binding and storing the mapping in the mapping data structure, wherein code for the change handler for the option is defined in different classes within the class inheritance hierarchy and the change handler code from each of the different classes is executed when the option value changes," as recited in amended claim 1.

Applicants respectfully submit that *Owens* is not sufficient to overcome the deficiencies of *McLennan*. Specifically, *Owens*, alone or in combination with *McLennan*, does not teach or suggest at least "notifying objects of a change in an option value of an

option through a change handler identified by an option binding, the option binding being located by first searching a mapping data structure for a previously computed mapping to the option binding and, if no mapping was previously computed, by then computing the mapping to the option binding and storing the mapping in the mapping data structure, wherein code for the change handler for the option is defined in different classes within the class inheritance hierarchy and the change handler code from each of the different classes is executed when the option value changes,” as recited in amended claim 1. For at least the foregoing reasons, Applicants submit that claim 1 is allowable over *McLennan* in view of *Owens*.

Claims 10, 19, and 20 are independent claims that, although of different scope, recite language similar to that which distinguishes claim 1 from *McLennan* in view of *Owens*. Accordingly, Applicants submit that claims 10, 19, and 20 are allowable over *McLennan* in view of *Owens*, for at least the reasons given with respect to claim 1. Dependent claims 3, 5, 6, 9, 12, 14, 15, 18, and 21 are allowable not only for the reasons stated above with regard to their respective allowable base claims, but also for their own additional features that distinguish them from *McLennan* in view of *Owens*.

2. Rejection of Claims 2 and 11

The Examiner rejected claims 2 and 11 under 35 U.S.C. 103(a) as unpatentable over *McLennan* in view of *Owens*, and further in view of *Li*. Applicants respectfully traverse this rejection as well.

Claims 2 and 11 are dependent claims depending on independent claims 1 and 10, respectively. Applicants respectfully submit that *Li* is not sufficient to overcome the deficiencies of *McLennan* in view of *Owens*. Specifically, *Li*, alone or in combination

with *McLennan* in view of *Owens*, does not teach or suggest at least “notifying objects of a change in an option value of an option through a change handler identified by an option binding, the option binding being located by first searching a mapping data structure for a previously computed mapping to the option binding and, if no mapping was previously computed, by then computing the mapping to the option binding and storing the mapping in the mapping data structure, wherein code for the change handler for the option is defined in different classes within the class inheritance hierarchy and the change handler code from each of the different classes is executed when the option value changes,” as recited in amended claim 1. Therefore, claims 2 and 11 are allowable over *McLennan* in view of *Owens*, and further in view of *Li*, for reasons similar to those stated above with respect to independent claims 1 and 10. Moreover, Applicants submit that claims 2 and 11 are allowable not only for the reasons stated above with regard to independent claims 1 and 10, but also for their own additional features that distinguish claims 2 and 11 from *McLennan*, *Owens*, and *Li*.

3. Rejection of Claims 7, 8, 16, and 17

The Examiner rejected claims 7, 8, 16, and 17 under 35 U.S.C. 103(a) as unpatentable over *McLennan* in view of *Owens*, and further in view of *Hostetter*. Applicants respectfully traverse this rejection as well.

Claims 7, 8, 16, and 17 are dependent claims depending on independent claims 1 and 10, respectively. Applicants respectfully submit that *Hostetter* is not sufficient to overcome the deficiencies of *McLennan* in view of *Owens*. Specifically, *Hostetter*, alone or in combination with *McLennan* in view of *Owens*, does not teach or suggest at least “notifying objects of a change in an option value of an option through a change handler

identified by an option binding, the option binding being located by first searching a mapping data structure for a previously computed mapping to the option binding and, if no mapping was previously computed, by then computing the mapping to the option binding and storing the mapping in the mapping data structure, wherein code for the change handler for the option is defined in different classes within the class inheritance hierarchy and the change handler code from each of the different classes is executed when the option value changes," as recited in amended claim 1. Therefore, claims 7, 8, 16, and 17 are allowable over *McLennan* in view of *Owens*, and further in view of *Hostetter*, for reasons similar to those stated above with respect to independent claims 1 and 10. Moreover, Applicants submit that claims 7, 8, 16, and 17 are allowable not only for the reasons stated above with regard to independent claims 1 and 10, but also for their own additional features that distinguish claims 7, 8, 16, and 17 from *McLennan*, *Owens*, and *Hostetter*.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: February 9, 2006

By: 

Joshua C. Liu
Reg. No. 55,391